

**CoSEA Core Curriculum Meeting, April 8, 2013**  
Discussion led by Ricky Dobbs, Dean of University College

Core Curriculum Revision Basics for Sciences and Math

- Core curriculum revision process ongoing on campus.
- Acting upon state mandate—focus upon skills (Core Objectives) imparted by core curriculum rather than content. (Attachment from CB)
- Sciences responsible for critical thinking, communication, empirical and quantitative reasoning, and teamwork.
- Mathematics responsible for critical thinking, communication, empirical and quantitative reasoning.
- All content areas affected and all are wrestling with making the connection between their content and the skills expected of graduates and embodied in the state Core Objectives.
- Core objectives have been refined locally to produce learning outcomes. (Attachment)

Numbers, Hours, Labs and Courses

- State mandates a move from our current 43 hours to a statewide limit of 42. Not as simple as subtraction.
- 36 hours of that 42 are spelled out, including 6 for life and physical science and 3 for mathematics.
- 6 hours are Component Area Option—i.e. six hours we can determine locally based upon local needs and goals.
- 3 have been assigned to speech communication by University Studies Council.
- The remaining 3 are based upon degree type—bachelor of science or bachelor of arts, for example.
- Students seeking a bachelor of science are required to take either a second math or third science for a total of six or nine hours respectively, regardless of major. (See attached to visualize these divisions/distributions of hours).
- Students not seeking a bachelor of science may simply take six hours of science.

Tricky part

- Non-majors not pursuing a BS are not required to take labs.
- Majors must take labs.
- Several programs that rely upon math/science courses as support courses need their students to take labs—i.e. nursing, agriculture and many education (teacher certification) majors.

- Question is—what is your course's audience and how will that affect a choice departments need to make, that choice being: does the course keep its lab and if so for which students?
- Next question is—what steps do you need to take to assure non-majors sufficient exposure to assignments meeting the teamwork requirement?

***Coordinating Board Mandates Skills effective Fall 2014***

***Critical Thinking--*** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

- 1.) Students will be able to differentiate between fact and opinion.
- 2.) Students will be able to form substantive and evidence-driven arguments to propose solutions to problems or explain phenomena.
- 3.) Students will be able to discern between relevant and irrelevant information, recognize bias in source material, and critically examine a diversity of source material.
- 4.) Students will be able to recognize their own position as being subjective, follow objectively the arguments of others, and interpret data.
- 5.) Students will demonstrate the ability to synthesize a cogent body of knowledge from various sources of information, acknowledge the contributions/insights of others, and make independent judgments.
- 6.) Students will demonstrate creative thinking by linking content and insights from multiple disciplines.
- 7.) Students will develop and execute effective processes for completing tasks.
- 8.) Students will be able to analyze, evaluate, or solve problems when given a set of circumstances or data.

***Communications--*** to include effective development, interpretation and expression of ideas through written, oral and visual communication.

- 1.) In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure.
- 2.) Student communication will be clear, purposeful, and make appropriate use of evidence, data and technology as applicable.
- 3.) Student communication will follow conventions of grammar and syntax appropriate to the audience, purpose and message.

***Empirical and Quantitative Skills--*** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

- 1.) Students will be able understand and utilize mathematical functions and empirical principles and processes.
- 2.) Students will explain the role of mathematics across disciplines, including its relationship to the framing and answering of research questions.

- 3.) Students will be able to interpret, test and demonstrate principles revealed in empirical data.
- 4.) Students will be able recognize bias and assumptions in arguments to understand the strengths and/or weaknesses of methodologies and/or project/research design.

**Teamwork--** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

- 1.) Students will be able to work together toward a shared purpose relevant to the course or discipline with a sense of shared responsibility for meeting that purpose.
- 2.) Students will consider different points of view, work effectively with others despite differences, and understand the juncture between leadership and cooperation.
- 3.) Students will be able to engage with peers in a way that demonstrates their understanding of relevant course theories and concepts.

**Personal Responsibility--** to include the ability to connect choices, actions and consequences to ethical decision-making

- 1.) Students will be able to understand their role in their own education.
- 2.) Students will understand and practice academic honesty.
- 3.) Students will examine the ethical dimension of academic inquiry.
- 4.) Students will be able to recognize the interconnectedness of personal choices, responsibilities, and consequences.

**Social Responsibility--** to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

- 1.) Students will demonstrate awareness of societal and/or civic issues.
- 2.) Students will describe the relationships of individuals to their communities.
- 3.) Students will recognize and understand the roles of diversity in society.
- 4.) Students will demonstrate understanding and empathy toward societal and/or civic issues.